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10/507,443	04/18/2006	Dirk Weber	10191/4006	6716

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EXAMINER

ROCCA, JOSEPH M

ART UNIT	PAPER NUMBER
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3616

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/507,443	Applicant(s) WEBER ET AL.	
	Examiner Joseph Rocca	Art Unit 3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 11-23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 11-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Byon (U.S. 5,658,011) in view of Stopczynski (U.S. 6,519,519 B1).

Byon discloses a system for protecting a vehicle occupant in the occurrence of a potentially dangerous situation, comprising:

At least one system that is assigned to a seat of the vehicle occupant and is configured to be activated;

A pressure sensor (Element 122) for monitoring a pressure of at least one tire;

An analysis unit (Fig. 2-3, Elements 120) for analyzing the pressure of the at least one tire to determine whether a value of a loss of the pressure of the at least one tire exceeds a threshold value; and

A triggering control unit (Element 140) for triggering activation of the at least one system that is assigned to the seat of the vehicle occupant, if the value of the loss of the tire pressure of the at least one tire exceeds the threshold value, wherein exceeding of the threshold value corresponds to a sudden pressure loss occurring in a tire blowout (Fig. 3).

Byon does not disclose that the system that is assigned to a seat of the vehicle occupant and is configured to be reversibly activated. Nevertheless, Stopczynski discloses the use of a reversible seat belt pretensioner to protect vehicle occupants (Fig. 4A, Element 4A) in response to any one of a number of hazards occurring in a vehicle, which are detected and sensed by a crash evaluation circuit, including the loss of tire pressure (Fig. 1, Col. 4, Lines 40-67 to Col. 6, Line 24).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Byon to utilize a reversible means to protect the occupant, such as a reversible pretensioner, such as taught by Stopczynski, so as to provide a known means for keeping an occupant securely in their seat, which would help protect them from injury caused by an impact and/or rollover, which could potentially result in a loss of tire pressure and/or a tire blowout.

With respect to claims 12 and 18, Byon as modified by Stopczynski, as discussed above, further teaches that the triggering control unit activates a tensioning mechanism of a reversible belt tensioning system.

Regarding claim 13, Byon as modified by Stopczynski teaches a method wherein if activation of the system is triggered, an existence of an imminent possibility of an accident is assumed and an appropriate information is transmitted to at least one triggering unit for adjusting a triggering threshold for triggering at least one restraint device.

With respect to claim 14, Byon as modified by Stopczynski teaches a method wherein if activation of the system is triggered, an existence of an imminent possibility of

an accident is assumed and an appropriate information is transmitted to at least one triggering unit for adjusting a triggering threshold for triggering at least one restraint device.

As to claims 15 and 16, Byon as modified by Stopczynski teaches a method wherein the appropriate information is fed into a vehicle information network and is made available to a plurality of triggering units for adjusting at least one of parameters and triggering thresholds for triggering a plurality of restraint devices.

Regarding claim 19, Byon as modified by Stopczynski, teaches the system above further comprising a crash evaluation circuit, wherein a signal indicating the exceeding of the threshold value is sent to the crash evaluation circuit for use as a parameter indicating an existence of imminent possibility of an accident.

With respect to claim 20, Byon as modified by Stopczynski, teaches the system above further comprising a crash evaluation circuit, wherein a signal indicating the exceeding of the threshold value is sent to the crash evaluation circuit for use as a parameter indicating an existence of imminent possibility of an accident.

Regarding claim 21, Byon as modified by Stopczynski, teaches the system above further comprising a signal indicating the exceeding of the threshold value is fed into a vehicle information network.

With respect to claims 22 and 23, Byon as modified by Stopczynski, teaches the system above wherein a signal indicating the exceeding of the threshold value is fed into a vehicle information network.

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3. Claims 11-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Class et al. (U.S. 6,533,321 B2) in view of Byon (U.S. 5,658,011).

Class discloses a system for protecting a vehicle occupant in the occurrence of a potentially dangerous situation, comprising:

At least one system that is assigned to a seat of the vehicle occupant and is configured to be reversibly activated;

A pressure sensor (Col. 5, Lines 1-5) for monitoring a pressure of at least one tire; and

A triggering control unit for triggering activation of the at least one system that is assigned to the seat of the vehicle occupant and is configured to be reversibly activated (Col. 4, Lines 19-27, Fig. 6), if the value of the loss of the tire pressure of the at least one tire exceeds the threshold value, wherein exceeding of the threshold value corresponds to a sudden pressure loss occurring in a tire blowout.

Class does not disclose an analysis unit for analyzing the pressure of the at least one tire to determine whether a value of a loss of the pressure of the at least one tire exceeds a threshold value.

Byon teaches the use of a safety system for protecting a vehicle occupant comprising an analysis unit for analyzing the pressure of the at least one tire to determine whether a value of a loss of the pressure of the at least one tire exceeds a threshold value (Fig. 2-3, Elements 120).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Class to comprise an analysis unit for analyzing the pressure of the at least one tire to determine whether a value of a loss of the pressure of the at least one tire exceeds a threshold value, in view of the teachings of Byon, so as to ensure that the system is only activated at a point where activation is beneficial, in other words, so as to ensure that the system is only activated when the pressure is below an amount that would necessitate activation of the system.

Regarding to claims 12 and 18, Class as modified by Byon, further teaches that the triggering control unit activates a tensioning mechanism of a reversible belt tensioning system.

With respect to claim 13, Class as modified by Byon teaches a method wherein if activation of the system is triggered, an existence of an imminent possibility of an accident is assumed and an appropriate information is transmitted to at least one triggering unit for adjusting a triggering threshold for triggering at least one restraint device.

Regarding to claim 14, Class as modified by Byon teaches a method wherein if activation of the system is triggered, an existence of an imminent possibility of an accident is assumed and an appropriate information is transmitted to at least one triggering unit for adjusting a triggering threshold for triggering at least one restraint device.

As to claims 15 and 16, Class as modified by Byon teaches a method wherein the appropriate information is fed into a vehicle information network and is made

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available to a plurality of triggering units for adjusting at least one of parameters and triggering thresholds for triggering a plurality of restraint devices.

Regarding claim 19, Class as modified by Byon, teaches the system above further comprising a crash evaluation circuit, wherein a signal indicating the exceeding of the threshold value is sent to the crash evaluation circuit for use as a parameter indicating an existence of imminent possibility of an accident.

With respect to claim 20, Class as modified by Byon, teaches the system above further comprising a crash evaluation circuit, wherein a signal indicating the exceeding of the threshold value is sent to the crash evaluation circuit for use as a parameter indicating an existence of imminent possibility of an accident.

Regarding claim 21, Class as modified by Byon, teaches the system above further comprising a signal indicating the exceeding of the threshold value is fed into a vehicle information network.

With respect to claims 22 and 23, Class as modified by Byon, teaches the system above wherein a signal indicating the exceeding of the threshold value is fed into a vehicle information network.

Examiner's Note

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure because they relate to vehicle safety systems that involve ensuring occupant safety wherein tire pressure is at least a factor that could create a situation causing danger to the occupant:

- a. Horie et al. (U.S. 6,323,765 B1) discloses a tire air-pressure abnormality alarming device and method thereof;
- b. Nantz et al. (U.S. 6,434,470 B1) discloses a means for limiting a vehicles speed based detection of an improper tire pressure;
- c. Watson et al. (U.S. 6,529,811 B2) discloses a vehicle rollover detection system, which mentions among other things that a tire blowout can cause a vehicular rollover (see, Col. 2, Lines 49-54) and also that a seat belt pretensioner (Element 32) is useful in protecting occupants in the event of such an event;
- d. Miller et al. (U.S. 6,609,066 B2) teaches using tire pressure as part of a method and apparatus for activating a crash counter measure in response to the braking ability of a vehicle;
- e. Wantabe et al. (U.S. 6,720,869 B2) teaches a tire pressure detector for a vehicle;
- f. Subbian et al. (U.S. 7,162,343 B2) although having a later date than that of applicants, utilizes tire pressure as a factor in detecting rollover of a vehicle.


Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Rocca whose telephone number is 571-272-5191. The examiner can normally be reached on 8:30 AM to 5:00 PM, Monday through Friday.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Joseph Rocca
Patent Examiner
AU-3616



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